analysis3a_pfalciparum_exact_NNLDSKV_hits

gene	uniprot_id	protein_length	exact_NNLDSKV_hits	hit_positions	note
MSP1	P04933	1639	0		>sp|P04933|MSP1_PLAFW Merozoite surface protein 1 OS=Plasmodium falciparum (isolate Wellcome) OX=5848 GN=MSP1 PE=1 SV=2
MSP2	Q8I3U3	0	0		fetch failed
MSP3	Q8IKX3	865	0		>tr|Q8IKX3|Q8IKX3_PLAF7 NADPH--cytochrome P450 reductase, putative OS=Plasmodium falciparum (isolate 3D7) OX=36329 GN=PF3D7_1450300 PE=4 SV=1
AMA1	Q8IKX4	500	0		>tr|Q8IKX4|Q8IKX4_PLAF7 Signal recognition particle 54 kDa protein OS=Plasmodium falciparum (isolate 3D7) OX=36329 GN=PF3D7_1450100 PE=1 SV=1
EBA175	P22140	391	0		>sp|P22140|EPT1_YEAST Choline/ethanolaminephosphotransferase 1 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) OX=559292 GN=EPT1 PE=1 SV=2
VAR2CSA	A0A143ZYX8	0	0		fetch failed
GLURP	P19214	1435	0		>sp|P19214|EBA1_PLAFC Erythrocyte-binding antigen 175 OS=Plasmodium falciparum (isolate Camp / Malaysia) OX=5835 PE=1 SV=2
SERA5	P28174	250	0		>sp|P28174|HXC3A_DANRE Homeobox protein Hox-C3a OS=Danio rerio OX=7955 GN=hoxc3a PE=2 SV=1
CLAG3.1	Q8IHN3	0	0		fetch failed
SURFIN4	Q8IDC3	0	0		fetch failed
sp|A0A143ZZK9|ATP4_PLAF7 P-type sodium-transporting ATPase4	A0A143ZZK9	1264	0		UniProt keyword:surface P.falciparum
sp|A0A144A134|ISN1_PLAF7 IMP-specific 5'-nucleotidase 1 OS=P	A0A144A134	444	0		UniProt keyword:surface P.falciparum
sp|A0A144A2H0|AMPP_PLAF7 Aminopeptidase P OS=Plasmodium falc	A0A144A2H0	777	0		UniProt keyword:surface P.falciparum
sp|A0A5K1K8H0|CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	568	0		UniProt keyword:surface P.falciparum
sp|C0H4V6|1433I_PLAF7 14-3-3 protein I OS=Plasmodium falcipa	C0H4V6	262	0		UniProt keyword:surface P.falciparum
sp|C0H5F4|RH2B_PLAF7 Reticulocyte-binding protein homolog 2b	C0H5F4	3254	0		UniProt keyword:surface P.falciparum
sp|C6KSX0|PF12_PLAF7 Merozoite surface protein P12 OS=Plasmo	C6KSX0	347	0		UniProt keyword:surface P.falciparum
sp|C6KT50|PDX1_PLAF7 Pyridoxal 5'-phosphate synthase subunit	C6KT50	301	0		UniProt keyword:surface P.falciparum
sp|C6KT68|FENR_PLAF7 Ferredoxin--NADP reductase, apicoplast	C6KT68	371	0		UniProt keyword:surface P.falciparum
sp|C6KTB8|PK4_PLAF7 Eukaryotic translation initiation factor	C6KTB8	3072	0		UniProt keyword:surface P.falciparum
sp|O15770|GSHR_PLAF7 Glutathione reductase OS=Plasmodium fal	O15770	546	0		UniProt keyword:surface P.falciparum
sp|O77310|RCH1A_PLAF7 Cytoadherence-linked asexual protein 3	O77310	1417	0		UniProt keyword:surface P.falciparum
sp|O77334|YVH1_PLAF7 Dual specificity protein phosphatase YV	O77334	575	0		UniProt keyword:surface P.falciparum
sp|O77389|FNT_PLAF7 Formate-nitrite transporter OS=Plasmodiu	O77389	309	0		UniProt keyword:surface P.falciparum
sp|O96139|EXO_PLAF7 Exonuclease/flap endonuclease PfExo OS=P	O96139	577	0		UniProt keyword:surface P.falciparum
sp|O96935|AMPN_PLAF7 Aminopeptidase N OS=Plasmodium falcipar	O96935	1085	0		UniProt keyword:surface P.falciparum
sp|O97240|APEX_PLAF7 DNA-(apurinic or apyrimidinic site) end	O97240	617	0		UniProt keyword:surface P.falciparum
sp|O97302|RH5IP_PLAF7 Rh5-interacting protein OS=Plasmodium	O97302	1086	0		UniProt keyword:surface P.falciparum
sp|O97336|EPTP7_PLAF7 EMP1 trafficking protein-7 OS=Plasmodi	O97336	317	0		UniProt keyword:surface P.falciparum
sp|P25805|FPC1_PLAF7 Falcipain-1 OS=Plasmodium falciparum (i	P25805	569	0		UniProt keyword:surface P.falciparum
sp|P50498|MSA2_PLAF7 Merozoite surface protein 2 OS=Plasmodi	P50498	272	0		UniProt keyword:surface P.falciparum
sp|P61074|PCNA1_PLAF7 DNA sliding clamp PCNA1 OS=Plasmodium	P61074	274	0		UniProt keyword:surface P.falciparum
sp|P61075|CDK2H_PLAF7 Cyclin-dependent kinase 2 homolog OS=P	P61075	288	0		UniProt keyword:surface P.falciparum
sp|P61076|TRXR_PLAF7 Thioredoxin reductase OS=Plasmodium fal	P61076	617	0		UniProt keyword:surface P.falciparum
sp|P62344|CDPK1_PLAF7 Calcium-dependent protein kinase 1 OS=	P62344	524	0		UniProt keyword:surface P.falciparum
sp|P86148|RH1_PLAF7 Reticulocyte-binding protein homolog 1 O	P86148	2971	0		UniProt keyword:surface P.falciparum
sp|Q08210|PYRD_PLAF7 Dihydroorotate dehydrogenase (quinone),	Q08210	569	0		UniProt keyword:surface P.falciparum
sp|Q6LFH8|OAT_PLAF7 Ornithine aminotransferase OS=Plasmodium	Q6LFH8	414	0		UniProt keyword:surface P.falciparum
sp|Q76NL8|FCLN_PLAF7 Falcilysin OS=Plasmodium falciparum (is	Q76NL8	1193	0		UniProt keyword:surface P.falciparum
sp|Q76NM7|RAB5B_PLAF7 Ras-related protein Rab-5B OS=Plasmodi	Q76NM7	207	0		UniProt keyword:surface P.falciparum
sp|Q7K6A5|MDR_PLAF7 Multidrug resistance protein 1 OS=Plasmo	Q7K6A5	1419	0		UniProt keyword:surface P.falciparum
sp|Q7K740|CSP_PLAF7 Circumsporozoite protein OS=Plasmodium f	Q7K740	397	0		UniProt keyword:surface P.falciparum
sp|Q7KQJ9|PCNA2_PLAF7 DNA sliding clamp PCNA2 OS=Plasmodium	Q7KQJ9	264	0		UniProt keyword:surface P.falciparum
sp|Q7KQL3|ARF1_PLAF7 ADP-ribosylation factor 1 OS=Plasmodium	Q7KQL3	181	0		UniProt keyword:surface P.falciparum
sp|Q7KQL9|ALF_PLAF7 Fructose-bisphosphate aldolase OS=Plasmo	Q7KQL9	369	0		UniProt keyword:surface P.falciparum
sp|Q7KQM4|PLM1_PLAF7 Plasmepsin I OS=Plasmodium falciparum (	Q7KQM4	452	0		UniProt keyword:surface P.falciparum
sp|Q7KWJ5|HXT1_PLAF7 Hexose transporter 1 OS=Plasmodium falc	Q7KWJ5	504	0		UniProt keyword:surface P.falciparum
sp|Q8I0U8|MSP1_PLAF7 Merozoite surface protein 1 OS=Plasmodi	Q8I0U8	1720	0		UniProt keyword:surface P.falciparum
sp|Q8I0V0|SUB1_PLAF7 Subtilisin-like protease 1 OS=Plasmodiu	Q8I0V0	688	0		UniProt keyword:surface P.falciparum
sp|Q8I1T1|KAD3_PLAF7 GTP:AMP phosphotransferase OS=Plasmodiu	Q8I1T1	229	0		UniProt keyword:surface P.falciparum
sp|Q8I266|NCR1_PLAF7 Niemann-Pick type C1-related protein OS	Q8I266	1470	0		UniProt keyword:surface P.falciparum
sp|Q8I295|ISPH_PLAF7 4-hydroxy-3-methylbut-2-enyl diphosphat	Q8I295	535	0		UniProt keyword:surface P.falciparum
sp|Q8I298|STAR_PLAF7 StAR-related lipid transfer protein OS=	Q8I298	466	0		UniProt keyword:surface P.falciparum
sp|Q8I2D9|GEX10_PLAF7 CX3CL1-binding protein 1 OS=Plasmodium	Q8I2D9	243	0		UniProt keyword:surface P.falciparum
sp|Q8I2J3|DNPEP_PLAF7 Aspartyl aminopeptidase OS=Plasmodium	Q8I2J3	570	0		UniProt keyword:surface P.falciparum
sp|Q8I2X3|GAP50_PLAF7 Glideosome-associated protein 50 OS=Pl	Q8I2X3	396	0		UniProt keyword:surface P.falciparum
sp|Q8I333|ICP_PLAF7 Falstatin OS=Plasmodium falciparum (isol	Q8I333	413	0		UniProt keyword:surface P.falciparum
sp|Q8I384|ARGI_PLAF7 Arginase OS=Plasmodium falciparum (isol	Q8I384	411	0		UniProt keyword:surface P.falciparum
sp|Q8I395|RCH3_PLAF7 High molecular weight rhoptry protein 3	Q8I395	897	0		UniProt keyword:surface P.falciparum
sp|Q8I3M7|DMT1_PLAF7 Divalent metal transporter 1 OS=Plasmod	Q8I3M7	684	0		UniProt keyword:surface P.falciparum
sp|Q8I3X4|PNPH_PLAF7 Purine nucleoside phosphorylase OS=Plas	Q8I3X4	245	0		UniProt keyword:surface P.falciparum
sp|Q8I4R4|CHIT_PLAF7 Chitinase OS=Plasmodium falciparum (iso	Q8I4R4	378	0		UniProt keyword:surface P.falciparum
sp|Q8I4S1|KTHY_PLAF7 Thymidylate kinase OS=Plasmodium falcip	Q8I4S1	210	0		UniProt keyword:surface P.falciparum
sp|Q8I4V8|FKB35_PLAF7 Peptidyl-prolyl cis-trans isomerase FK	Q8I4V8	304	0		UniProt keyword:surface P.falciparum
sp|Q8I4X0|ACT1_PLAF7 Actin-1 OS=Plasmodium falciparum (isola	Q8I4X0	376	0		UniProt keyword:surface P.falciparum
sp|Q8I566|GLYA_PLAF7 Serine hydroxymethyltransferase OS=Plas	Q8I566	442	0		UniProt keyword:surface P.falciparum
sp|Q8I5D2|MSP9_PLAF7 Merozoite surface protein 9 OS=Plasmodi	Q8I5D2	743	0		UniProt keyword:surface P.falciparum
sp|Q8I5I0|VIT_PLAF7 Vacuolar iron transporter OS=Plasmodium	Q8I5I0	273	0		UniProt keyword:surface P.falciparum
sp|Q8I5I8|GAP45_PLAF7 Glideosome-associated protein 45 OS=Pl	Q8I5I8	204	0		UniProt keyword:surface P.falciparum
sp|Q8I5Q6|TPX2_PLAF7 Thioredoxin peroxidase 2 OS=Plasmodium	Q8I5Q6	216	0		UniProt keyword:surface P.falciparum
sp|Q8I5R7|SYP_PLAF7 Proline--tRNA ligase OS=Plasmodium falci	Q8I5R7	746	0		UniProt keyword:surface P.falciparum
sp|Q8I5V4|PDEA_PLAF7 cGMP-specific 3',5'-cyclic phosphodiest	Q8I5V4	954	0		UniProt keyword:surface P.falciparum
sp|Q8I615|ORC1_PLAF7 Origin recognition complex subunit 1 OS	Q8I615	1189	0		UniProt keyword:surface P.falciparum
sp|Q8I6U4|FPC2A_PLAF7 Falcipain-2a OS=Plasmodium falciparum	Q8I6U4	484	0		UniProt keyword:surface P.falciparum
sp|Q8I6U5|FPC2B_PLAF7 Falcipain-2b OS=Plasmodium falciparum	Q8I6U5	482	0		UniProt keyword:surface P.falciparum
sp|Q8I6V3|PLM2_PLAF7 Plasmepsin II OS=Plasmodium falciparum	Q8I6V3	453	0		UniProt keyword:surface P.falciparum
sp|Q8I6Z5|PLM5_PLAF7 Plasmepsin V OS=Plasmodium falciparum (	Q8I6Z5	590	0		UniProt keyword:surface P.falciparum
sp|Q8I6Z7|PDEB_PLAF7 Dual 3',5'-cyclic-AMP and -GMP phosphod	Q8I6Z7	1139	0		UniProt keyword:surface P.falciparum
sp|Q8I719|KGP_PLAF7 cGMP-dependent protein kinase OS=Plasmod	Q8I719	853	0		UniProt keyword:surface P.falciparum
sp|Q8IAR5|DEGPH_PLAF7 Serine protease DegP homolog OS=Plasmo	Q8IAR5	870	0		UniProt keyword:surface P.falciparum
sp|Q8IAS0|PLM10_PLAF7 Plasmepsin X OS=Plasmodium falciparum	Q8IAS0	573	0		UniProt keyword:surface P.falciparum
sp|Q8IAX8|ALBA1_PLAF7 DNA/RNA-binding protein ALBA1 OS=Plasm	Q8IAX8	248	0		UniProt keyword:surface P.falciparum
sp|Q8IB06|KAD2_PLAF7 Adenylate kinase 2 OS=Plasmodium falcip	Q8IB06	275	0		UniProt keyword:surface P.falciparum
sp|Q8IBS5|CDPK4_PLAF7 Calcium-dependent protein kinase 4 OS=	Q8IBS5	528	0		UniProt keyword:surface P.falciparum
sp|Q8IBT4|SUFS_PLAF7 Cysteine desulfurase SufS OS=Plasmodium	Q8IBT4	546	0		UniProt keyword:surface P.falciparum
sp|Q8IBZ9|CRT_PLAF7 Chloroquine resistance transporter OS=Pl	Q8IBZ9	424	0		UniProt keyword:surface P.falciparum
sp|Q8ICR0|CDPK2_PLAF7 Calcium-dependent protein kinase 2 OS=	Q8ICR0	513	0		UniProt keyword:surface P.falciparum
sp|Q8IDA0|GCYB_PLAF7 Guanylate cyclase beta OS=Plasmodium fa	Q8IDA0	3179	0		UniProt keyword:surface P.falciparum
sp|Q8IDH9|ATM1_PLAF7 ABC transporter ATM1 OS=Plasmodium falc	Q8IDH9	1049	0		UniProt keyword:surface P.falciparum
sp|Q8IDM6|ENT1_PLAF7 Nucleoside transporter 1 OS=Plasmodium	Q8IDM6	422	0		UniProt keyword:surface P.falciparum
sp|Q8IDN0|PFS47_PLAF7 Female gametocyte surface protein P47	Q8IDN0	439	0		UniProt keyword:surface P.falciparum
sp|Q8IDP4|THIO2_PLAF7 Thioredoxin 2 OS=Plasmodium falciparum	Q8IDP4	157	0		UniProt keyword:surface P.falciparum
sp|Q8IDQ9|PMT_PLAF7 Phosphoethanolamine N-methyltransferase	Q8IDQ9	266	0		UniProt keyword:surface P.falciparum
sp|Q8IDR3|MYOA_PLAF7 Myosin-A OS=Plasmodium falciparum (isol	Q8IDR3	818	0		UniProt keyword:surface P.falciparum
sp|Q8IDX6|RH2A_PLAF7 Reticulocyte-binding protein homolog 2a	Q8IDX6	3130	0		UniProt keyword:surface P.falciparum
sp|Q8IE02|APN1_PLAF7 Apurinic-apyrimidinic endonuclease 1 OS	Q8IE02	597	0		UniProt keyword:surface P.falciparum
sp|Q8IE14|SEC11_PLAF7 Signal peptidase complex catalytic sub	Q8IE14	184	0		UniProt keyword:surface P.falciparum
sp|Q8IE47|SIR2A_PLAF7 NAD-dependent protein deacylase Sir2A	Q8IE47	273	0		UniProt keyword:surface P.falciparum
sp|Q8IE95|SETVS_PLAF7 Variant-silencing SET domain-containin	Q8IE95	2548	0		UniProt keyword:surface P.falciparum
sp|Q8IEG9|LIPLA_PLAF7 Lipoate--protein ligase 1 OS=Plasmodiu	Q8IEG9	408	0		UniProt keyword:surface P.falciparum
sp|Q8IEJ0|GEX07_PLAF7 CX3CL1-binding protein 2 OS=Plasmodium	Q8IEJ0	245	0		UniProt keyword:surface P.falciparum
sp|Q8IFM5|RH5_PLAF7 Reticulocyte-binding protein homolog 5 O	Q8IFM5	526	0		UniProt keyword:surface P.falciparum
sp|Q8IFM8|CYRPA_PLAF7 Cysteine-rich protective antigen OS=Pl	Q8IFM8	362	0		UniProt keyword:surface P.falciparum
sp|Q8IHY1|GCYA_PLAF7 Guanylate cyclase alpha OS=Plasmodium f	Q8IHY1	4226	0		UniProt keyword:surface P.falciparum
sp|Q8IHZ5|SUB2_PLAF7 Subtilisin-like protease 2 OS=Plasmodiu	Q8IHZ5	1341	0		UniProt keyword:surface P.falciparum
sp|Q8IHZ9|KC1_PLAF7 Casein kinase I OS=Plasmodium falciparum	Q8IHZ9	324	0		UniProt keyword:surface P.falciparum
sp|Q8II36|AQP1_PLAF7 Aquaglyceroporin OS=Plasmodium falcipar	Q8II36	258	0		UniProt keyword:surface P.falciparum
sp|Q8IIJ6|UCH37_PLAF7 Ubiquitin carboxyl-terminal hydrolase	Q8IIJ6	465	0		UniProt keyword:surface P.falciparum
sp|Q8IIJ9|DPAP1_PLAF7 Dipeptidyl aminopeptidase 1 OS=Plasmod	Q8IIJ9	700	0		UniProt keyword:surface P.falciparum
sp|Q8IIK4|PDX2_PLAF7 Pyridoxal 5'-phosphate synthase subunit	Q8IIK4	219	0		UniProt keyword:surface P.falciparum
sp|Q8IIL0|FPC3_PLAF7 Falcipain-3 OS=Plasmodium falciparum (i	Q8IIL0	492	0		UniProt keyword:surface P.falciparum
sp|Q8IIS0|DTD_PLAF7 D-aminoacyl-tRNA deacylase OS=Plasmodium	Q8IIS0	164	0		UniProt keyword:surface P.falciparum
sp|Q8IJ32|DRP2_PLAF7 Dynamin-related protein Dyn2 OS=Plasmod	Q8IJ32	709	0		UniProt keyword:surface P.falciparum
sp|Q8IJA9|ADA_PLAF7 Adenosine deaminase OS=Plasmodium falcip	Q8IJA9	367	0		UniProt keyword:surface P.falciparum
sp|Q8IJH8|PLSH_PLAF7 Phospholipid scramblase OS=Plasmodium f	Q8IJH8	275	0		UniProt keyword:surface P.falciparum
sp|Q8IJK2|ATG8_PLAF7 Autophagy-related protein 8 OS=Plasmodi	Q8IJK2	124	0		UniProt keyword:surface P.falciparum
sp|Q8IJM5|PMM_PLAF7 Phosphomannomutase OS=Plasmodium falcipa	Q8IJM5	244	0		UniProt keyword:surface P.falciparum
sp|Q8IJN7|ENO_PLAF7 Enolase OS=Plasmodium falciparum (isolat	Q8IJN7	446	0		UniProt keyword:surface P.falciparum
sp|Q8IJP2|MAP1B_PLAF7 Methionine aminopeptidase 1b OS=Plasmo	Q8IJP2	517	0		UniProt keyword:surface P.falciparum
sp|Q8IJR9|GUAA_PLAF7 GMP synthase [glutamine-hydrolyzing] OS	Q8IJR9	555	0		UniProt keyword:surface P.falciparum
sp|Q8IJV6|KAD1_PLAF7 Adenylate kinase 1 OS=Plasmodium falcip	Q8IJV6	242	0		UniProt keyword:surface P.falciparum
sp|Q8IJX8|ALBA3_PLAF7 Endonuclease ALBA3 OS=Plasmodium falci	Q8IJX8	107	0		UniProt keyword:surface P.falciparum
sp|Q8IKD3|PDED_PLAF7 cGMP-specific 3',5'-cyclic phosphodiest	Q8IKD3	815	0		UniProt keyword:surface P.falciparum
sp|Q8IKM8|UCHL3_PLAF7 Ubiquitin carboxyl-terminal hydrolase	Q8IKM8	232	0		UniProt keyword:surface P.falciparum
sp|Q8IKU0|GLUPH_PLAF7 Bifunctional glucose-6-phosphate 1-deh	Q8IKU0	910	0		UniProt keyword:surface P.falciparum
sp|Q8IL04|HDP_PLAF7 Heme ligase OS=Plasmodium falciparum (is	Q8IL04	205	0		UniProt keyword:surface P.falciparum
sp|Q8IL11|AMPL_PLAF7 Leucine aminopeptidase OS=Plasmodium fa	Q8IL11	605	0		UniProt keyword:surface P.falciparum
sp|Q8IL26|EIK1_PLAF7 Eukaryotic translation initiation facto	Q8IL26	1558	0		UniProt keyword:surface P.falciparum
sp|Q8IL80|TPX1_PLAF7 2-Cys peroxiredoxin OS=Plasmodium falci	Q8IL80	195	0		UniProt keyword:surface P.falciparum
sp|Q8ILG2|PLM9_PLAF7 Plasmepsin IX OS=Plasmodium falciparum	Q8ILG2	627	0		UniProt keyword:surface P.falciparum
sp|Q8ILQ7|GST_PLAF7 Glutathione S-transferase OS=Plasmodium	Q8ILQ7	211	0		UniProt keyword:surface P.falciparum
sp|Q8ILW0|SUFC_PLAF7 Iron-sulfur cluster assembly protein Su	Q8ILW0	347	0		UniProt keyword:surface P.falciparum
sp|Q8ILY1|PREX_PLAF7 Plastidic DNA replication/repair enzyme	Q8ILY1	2016	0		UniProt keyword:surface P.falciparum
sp|Q8IM15|PLM3_PLAF7 Plasmepsin III OS=Plasmodium falciparum	Q8IM15	451	0		UniProt keyword:surface P.falciparum
sp|Q8IM16|PLM4_PLAF7 Plasmepsin IV OS=Plasmodium falciparum	Q8IM16	449	0		UniProt keyword:surface P.falciparum
sp|Q9NJU9|CDPK3_PLAF7 Calcium-dependent protein kinase 3 OS=	Q9NJU9	562	0		UniProt keyword:surface P.falciparum
sp|Q9TY95|SERA5_PLAF7 Serine-repeat antigen protein 5 OS=Pla	Q9TY95	997	0		UniProt keyword:surface P.falciparum
sp|Q9TY96|SERA6_PLAF7 Serine-repeat antigen protein 6 OS=Pla	Q9TY96	1031	0		UniProt keyword:surface P.falciparum
sp|C0H571|RCH2_PLAF7 High molecular weight rhoptry protein 2	C0H571	1378	0		UniProt keyword:surface P.falciparum
sp|C6KSQ6|RAD50_PLAF7 Probable DNA repair protein RAD50 OS=P	C6KSQ6	2236	0		UniProt keyword:surface P.falciparum
sp|C6KST8|ZIP1_PLAF7 Zinc transporter ZIP1 OS=Plasmodium fal	C6KST8	358	0		UniProt keyword:surface P.falciparum
sp|C6KT66|AROC_PLAF7 Chorismate synthase OS=Plasmodium falci	C6KT66	527	0		UniProt keyword:surface P.falciparum
sp|C6KTD0|AAT1_PLAF7 Putative amino acid transporter AAT1 OS	C6KTD0	606	0		UniProt keyword:surface P.falciparum
sp|O96155|SUFE_PLAF7 Cysteine desulfuration protein SufE OS=	O96155	249	0		UniProt keyword:surface P.falciparum
sp|O96184|RL37A_PLAF7 Large ribosomal subunit protein eL43 O	O96184	96	0		UniProt keyword:surface P.falciparum
sp|O96237|ORC5_PLAF7 Origin recognition complex subunit 5 OS	O96237	899	0		UniProt keyword:surface P.falciparum
sp|P50250|SAHH_PLAF7 Adenosylhomocysteinase OS=Plasmodium fa	P50250	479	0		UniProt keyword:surface P.falciparum
sp|P62203|CALM_PLAF7 Calmodulin OS=Plasmodium falciparum (is	P62203	149	0		UniProt keyword:surface P.falciparum
sp|P62368|ISPF_PLAF7 2-C-methyl-D-erythritol 2,4-cyclodiphos	P62368	240	0		UniProt keyword:surface P.falciparum
sp|P68874|P230_PLAF7 Gametocyte surface protein P230 OS=Plas	P68874	3135	0		UniProt keyword:surface P.falciparum
sp|Q76NM6|VATA_PLAF7 V-type proton ATPase catalytic subunit	Q76NM6	611	0		UniProt keyword:surface P.falciparum
sp|Q7K734|FEN1_PLAF7 Flap endonuclease 1 OS=Plasmodium falci	Q7K734	672	0		UniProt keyword:surface P.falciparum
sp|Q7KQL5|TBB_PLAF7 Tubulin beta chain OS=Plasmodium falcipa	Q7KQL5	445	0		UniProt keyword:surface P.falciparum
sp|Q7KQL8|THIO1_PLAF7 Thioredoxin 1 OS=Plasmodium falciparum	Q7KQL8	104	0		UniProt keyword:surface P.falciparum
sp|Q8I1U7|SMC3_PLAF7 Structural maintenance of chromosomes p	Q8I1U7	1193	0		UniProt keyword:surface P.falciparum
sp|Q8I1X7|CERI2_PLAF7 Rhoptry surface protein CERLI2 OS=Plas	Q8I1X7	579	0		UniProt keyword:surface P.falciparum
sp|Q8I1Y0|PF41_PLAF7 Merozoite surface protein P41 OS=Plasmo	Q8I1Y0	378	0		UniProt keyword:surface P.falciparum
sp|Q8I239|PI51N_PLAF7 Phosphatidylinositol 4-phosphate 5-kin	Q8I239	1710	0		UniProt keyword:surface P.falciparum
sp|Q8I265|EIK2_PLAF7 Eukaryotic translation initiation facto	Q8I265	1595	0		UniProt keyword:surface P.falciparum
sp|Q8I2A6|CBPZ1_PLAF7 Putative zinc carboxypeptidase OS=Plas	Q8I2A6	1620	0		UniProt keyword:surface P.falciparum
sp|Q8I3A2|HU_PLAF7 Histone-like protein HU OS=Plasmodium fal	Q8I3A2	189	0		UniProt keyword:surface P.falciparum
sp|Q8I415|SSB_PLAF7 Single-stranded DNA-binding protein OS=P	Q8I415	284	0		UniProt keyword:surface P.falciparum
sp|Q8I430|SUB3_PLAF7 Subtilisin-like protease 3 OS=Plasmodiu	Q8I430	769	0		UniProt keyword:surface P.falciparum
sp|Q8I465|MYOB_PLAF7 Myosin-B OS=Plasmodium falciparum (isol	Q8I465	801	0		UniProt keyword:surface P.falciparum
sp|Q8I4Z1|DOC2_PLAF7 C2 domain-containing protein OS=Plasmod	Q8I4Z1	1846	0		UniProt keyword:surface P.falciparum
sp|Q8I5E6|KCH1_PLAF7 Potassium channel K1 OS=Plasmodium falc	Q8I5E6	1966	0		UniProt keyword:surface P.falciparum
sp|Q8I6T1|P4548_PLAF7 Gametocyte surface protein P45/48 OS=P	Q8I6T1	448	0		UniProt keyword:surface P.falciparum
sp|Q8IAM2|1CPX_PLAF7 1-Cys peroxiredoxin OS=Plasmodium falci	Q8IAM2	220	0		UniProt keyword:surface P.falciparum
sp|Q8IAY6|SODF_PLAF7 Superoxide dismutase [Fe] OS=Plasmodium	Q8IAY6	198	0		UniProt keyword:surface P.falciparum
sp|Q8IBG1|DYHC1_PLAF7 Dynein heavy chain-like protein 1 OS=P	Q8IBG1	5065	0		UniProt keyword:surface P.falciparum
sp|Q8IBH7|IF2A_PLAF7 Eukaryotic translation initiation facto	Q8IBH7	329	0		UniProt keyword:surface P.falciparum
sp|Q8IBI5|ISCS_PLAF7 Cysteine desulfurase IscS OS=Plasmodium	Q8IBI5	553	0		UniProt keyword:surface P.falciparum
sp|Q8IBN8|DDX31_PLAF7 ATP-dependent DNA helicase DDX31 OS=Pl	Q8IBN8	899	0		UniProt keyword:surface P.falciparum
sp|Q8IBP3|ITPA_PLAF7 Inosine triphosphate pyrophosphatase OS	Q8IBP3	198	0		UniProt keyword:surface P.falciparum
sp|Q8ID66|PF92_PLAF7 Merozoite surface protein P92 OS=Plasmo	Q8ID66	796	0		UniProt keyword:surface P.falciparum
sp|Q8IDF3|MCA1_PLAF7 Metacaspase-1 OS=Plasmodium falciparum	Q8IDF3	613	0		UniProt keyword:surface P.falciparum
sp|Q8IDN4|ALBA2_PLAF7 DNA/RNA-binding protein ALBA2 OS=Plasm	Q8IDN4	211	0		UniProt keyword:surface P.falciparum
sp|Q8IDQ0|LIPA_PLAF7 Lipoyl synthase, apicoplast OS=Plasmodi	Q8IDQ0	415	0		UniProt keyword:surface P.falciparum
sp|Q8IED5|FER_PLAF7 Ferredoxin, apicoplast OS=Plasmodium fal	Q8IED5	194	0		UniProt keyword:surface P.falciparum
sp|Q8IEF6|MYB1_PLAF7 Myb1 protein OS=Plasmodium falciparum (	Q8IEF6	414	0		UniProt keyword:surface P.falciparum
sp|Q8IID4|DYHC2_PLAF7 Dynein heavy chain-like protein 2 OS=P	Q8IID4	5251	0		UniProt keyword:surface P.falciparum
sp|Q8IIR7|PFERC_PLAF7 Endoplasmic reticulum-resident calcium	Q8IIR7	343	0		UniProt keyword:surface P.falciparum
sp|Q8IIS5|PESC_PLAF7 Pescadillo homolog OS=Plasmodium falcip	Q8IIS5	643	0		UniProt keyword:surface P.falciparum
sp|Q8IIT5|PTKL_PLAF7 Inactive protein tyrosine kinase pTKL O	Q8IIT5	1501	0		UniProt keyword:surface P.falciparum
sp|Q8IIU6|RTCB_PLAF7 RNA-splicing ligase RTCB OS=Plasmodium	Q8IIU6	506	0		UniProt keyword:surface P.falciparum
sp|Q8IIW9|SUFD_PLAF7 Iron-sulfur cluster assembly protein Su	Q8IIW9	1462	0		UniProt keyword:surface P.falciparum
sp|Q8IJK4|MNMA_PLAF7 Putative tRNA-specific 2-thiouridylase	Q8IJK4	1084	0		UniProt keyword:surface P.falciparum
sp|Q8IJS6|DHMOX_PLAF7 Divergent heme oxygenase-like protein	Q8IJS6	305	0		UniProt keyword:surface P.falciparum
sp|Q8IKG4|DXR_PLAF7 1-deoxy-D-xylulose 5-phosphate reductois	Q8IKG4	488	0		UniProt keyword:surface P.falciparum
sp|Q8IKI3|KCH2_PLAF7 Potassium channel K2 OS=Plasmodium falc	Q8IKI3	1461	0		UniProt keyword:surface P.falciparum
sp|Q8IL84|MCA2_PLAF7 Metacaspase-2 OS=Plasmodium falciparum	Q8IL84	2020	0		UniProt keyword:surface P.falciparum
sp|Q8ILC1|HSOP_PLAF7 Hsp70-Hsp90 organising protein OS=Plasm	Q8ILC1	564	0		UniProt keyword:surface P.falciparum
sp|Q8ILP3|P113_PLAF7 Surface protein P113 OS=Plasmodium falc	Q8ILP3	969	0		UniProt keyword:surface P.falciparum
sp|Q8ILT4|MCA3_PLAF7 Metacaspase-3 OS=Plasmodium falciparum	Q8ILT4	2280	0		UniProt keyword:surface P.falciparum
sp|Q8ILW9|ACT2_PLAF7 Actin-2 OS=Plasmodium falciparum (isola	Q8ILW9	376	0		UniProt keyword:surface P.falciparum
sp|Q9NFA0|SPCS2_PLAF7 Signal peptidase complex subunit 2 OS=	Q9NFA0	179	0		UniProt keyword:surface P.falciparum
sp|A0A143ZXM2|SEA1_PLAF7 Schizont egress antigen-1 OS=Plasmo	A0A143ZXM2	2074	0		UniProt keyword:surface P.falciparum
sp|A0A5K1K8Y8|ALBA4_PLAF7 DNA/RNA-binding protein ALBA4 OS=P	A0A5K1K8Y8	372	0		UniProt keyword:surface P.falciparum
sp|C0H4D0|SUBPM_PLAF7 Subtilisin propeptide-like protein OS=	C0H4D0	153	0		UniProt keyword:surface P.falciparum
sp|C0H4E4|DCXH_PLAF7 Doublecortin domain-containing protein	C0H4E4	238	0		UniProt keyword:surface P.falciparum
sp|C0H4W3|HEPF1_PLAF7 Probable ATP-dependent helicase PF08_0	C0H4W3	2082	0		UniProt keyword:surface P.falciparum
sp|C0H4X5|DRE2_PLAF7 Anamorsin homolog OS=Plasmodium falcipa	C0H4X5	266	0		UniProt keyword:surface P.falciparum
sp|C0H519|ATG3_PLAF7 Autophagy-related protein 3 OS=Plasmodi	C0H519	313	0		UniProt keyword:surface P.falciparum
sp|C0H537|TRM5_PLAF7 tRNA (guanine(37)-N(1))-methyltransfera	C0H537	781	0		UniProt keyword:surface P.falciparum
sp|C0H582|KADL_PLAF7 Inactive adenylate kinase OS=Plasmodium	C0H582	263	0		UniProt keyword:surface P.falciparum
sp|C6KT40|PFC43_PLAF7 Ookinete surface protein PIMMS43 OS=Pl	C6KT40	505	0		UniProt keyword:surface P.falciparum
sp|C6KTB7|ALTH1_PLAF7 Putative E3 ubiquitin-protein ligase p	C6KTB7	10287	0		UniProt keyword:surface P.falciparum
sp|C6KTD2|SET1_PLAF7 Putative histone-lysine N-methyltransfe	C6KTD2	6753	0		UniProt keyword:surface P.falciparum
sp|O96161|ISCA1_PLAF7 Iron-sulfur assembly protein IscA1 OS=	O96161	160	0		UniProt keyword:surface P.falciparum
sp|O96175|P230P_PLAF7 Male gametocyte surface protein P230p	O96175	2508	0		UniProt keyword:surface P.falciparum
sp|O96188|CERI1_PLAF7 Rhoptry surface protein CERLI1 OS=Plas	O96188	446	0		UniProt keyword:surface P.falciparum
sp|O96269|RS30_PLAF7 Small ribosomal subunit protein eS30 OS	O96269	58	0		UniProt keyword:surface P.falciparum
sp|O97231|RL44_PLAF7 Large ribosomal subunit protein eL42 OS	O97231	104	0		UniProt keyword:surface P.falciparum
sp|O97239|DOP1_PLAF7 Protein DOP1 homolog PFC0245c OS=Plasmo	O97239	3933	0		UniProt keyword:surface P.falciparum
sp|O97249|RS12_PLAF7 Small ribosomal subunit protein eS12 OS	O97249	141	0		UniProt keyword:surface P.falciparum
sp|O97297|ISCA2_PLAF7 Iron-sulfur assembly protein IscA2 OS=	O97297	404	0		UniProt keyword:surface P.falciparum
sp|O97313|RS3A_PLAF7 Small ribosomal subunit protein eS1 OS=	O97313	262	0		UniProt keyword:surface P.falciparum
sp|P27362|PGK_PLAF7 Phosphoglycerate kinase OS=Plasmodium fa	P27362	416	0		UniProt keyword:surface P.falciparum
sp|P46468|CDAT_PLAF7 Putative cell division cycle ATPase OS=	P46468	1229	0		UniProt keyword:surface P.falciparum
sp|Q25799|SUFB_PLAF7 Iron-sulfur cluster assembly protein Su	Q25799	470	0		UniProt keyword:surface P.falciparum
sp|Q25802|RPOC2_PLAF7 DNA-directed RNA polymerase subunit be	Q25802	959	0		UniProt keyword:surface P.falciparum
sp|Q4VWQ3|THIO3_PLAF7 Thioredoxin 3 OS=Plasmodium falciparum	Q4VWQ3	180	0		UniProt keyword:surface P.falciparum
sp|Q6LFN2|TEXP1_PLAF7 Trophozoite exported protein 1 OS=Plas	Q6LFN2	1103	0		UniProt keyword:surface P.falciparum
sp|Q6ZMA7|PFS16_PLAF7 Parasitophorous vacuole membrane prote	Q6ZMA7	157	0		UniProt keyword:surface P.falciparum
sp|Q76NM1|ERD2_PLAF7 ER lumen protein-retaining receptor OS=	Q76NM1	221	0		UniProt keyword:surface P.falciparum
sp|Q7KQM0|TPIS_PLAF7 Triosephosphate isomerase OS=Plasmodium	Q7KQM0	248	0		UniProt keyword:surface P.falciparum
sp|Q7KQM1|PRI1_PLAF7 DNA primase small subunit OS=Plasmodium	Q7KQM1	452	0		UniProt keyword:surface P.falciparum
sp|Q7KQM2|TPPC5_PLAF7 Trafficking protein particle complex s	Q7KQM2	184	0		UniProt keyword:surface P.falciparum
sp|Q8I1T8|ASNA_PLAF7 ATPase ASNA1 homolog OS=Plasmodium falc	Q8I1T8	379	0		UniProt keyword:surface P.falciparum
sp|Q8I1Y4|PF36P_PLAF7 Sporozoite surface protein P36p OS=Pla	Q8I1Y4	478	0		UniProt keyword:surface P.falciparum
sp|Q8I1Y5|PF36_PLAF7 Sporozoite surface protein P36 OS=Plasm	Q8I1Y5	379	0		UniProt keyword:surface P.falciparum
sp|Q8I236|KAD6_PLAF7 Adenylate kinase isoenzyme 6 homolog OS	Q8I236	186	0		UniProt keyword:surface P.falciparum
sp|Q8I2S0|LIPLB_PLAF7 Inactive lipoate--protein ligase 2 OS=	Q8I2S0	384	0		UniProt keyword:surface P.falciparum
sp|Q8I2T9|NIFU_PLAF7 NifU-like scaffold protein OS=Plasmodiu	Q8I2T9	247	0		UniProt keyword:surface P.falciparum
sp|Q8I335|GUF1_PLAF7 Translation factor GUF1 homolog, mitoch	Q8I335	1085	0		UniProt keyword:surface P.falciparum
sp|Q8I397|MFRN_PLAF7 Putative mitoferrin OS=Plasmodium falci	Q8I397	1199	0		UniProt keyword:surface P.falciparum
sp|Q8I3N6|SUFA_PLAF7 Iron-sulfur cluster assembly protein Su	Q8I3N6	177	0		UniProt keyword:surface P.falciparum
sp|Q8I3W2|RPIA_PLAF7 Ribose-5-phosphate isomerase OS=Plasmod	Q8I3W2	236	0		UniProt keyword:surface P.falciparum
sp|Q8I3Y6|PFD6_PLAF7 Probable prefoldin subunit 6 OS=Plasmod	Q8I3Y6	119	0		UniProt keyword:surface P.falciparum
sp|Q8I3Y8|INO1_PLAF7 Inositol-3-phosphate synthase 1 OS=Plas	Q8I3Y8	604	0		UniProt keyword:surface P.falciparum
sp|Q8I423|PF38_PLAF7 Merozoite surface protein P38 OS=Plasmo	Q8I423	349	0		UniProt keyword:surface P.falciparum
sp|Q8I467|CADF1_PLAF7 Cofilin/actin-depolymerizing factor ho	Q8I467	122	0		UniProt keyword:surface P.falciparum
sp|Q8I480|ZNRF2_PLAF7 RING finger protein PFE0100w OS=Plasmo	Q8I480	1272	0		UniProt keyword:surface P.falciparum
sp|Q8I4V2|RBM22_PLAF7 Pre-mRNA-splicing factor RBM22 homolog	Q8I4V2	357	0		UniProt keyword:surface P.falciparum
sp|Q8I5P7|SYSC_PLAF7 Serine--tRNA ligase, cytoplasmic OS=Pla	Q8I5P7	618	0		UniProt keyword:surface P.falciparum
sp|Q8I6U8|GBP_PLAF7 Glycophorin-binding protein 130 OS=Plasm	Q8I6U8	824	0		UniProt keyword:surface P.falciparum
sp|Q8IAW3|RU1C_PLAF7 U1 small nuclear ribonucleoprotein C OS	Q8IAW3	235	0		UniProt keyword:surface P.falciparum
sp|Q8IBB7|FT1_PLAF7 Folate transporter 1 OS=Plasmodium falci	Q8IBB7	505	0		UniProt keyword:surface P.falciparum
sp|Q8IDF6|PURA_PLAF7 Adenylosuccinate synthetase OS=Plasmodi	Q8IDF6	442	0		UniProt keyword:surface P.falciparum
sp|Q8IED2|SMC2_PLAF7 Structural maintenance of chromosomes p	Q8IED2	1218	0		UniProt keyword:surface P.falciparum
sp|Q8IEK7|ISD11_PLAF7 Protein Isd11 OS=Plasmodium falciparum	Q8IEK7	87	0		UniProt keyword:surface P.falciparum
sp|Q8II12|PMRT1_PLAF7 Plasma membrane resident transporter 1	Q8II12	409	0		UniProt keyword:surface P.falciparum
sp|Q8III1|MYLB_PLAF7 Myosin light chain B OS=Plasmodium falc	Q8III1	652	0		UniProt keyword:surface P.falciparum
sp|Q8IIK1|FT2_PLAF7 Folate transporter 2 OS=Plasmodium falci	Q8IIK1	455	0		UniProt keyword:surface P.falciparum
sp|Q8IIP1|COQ4_PLAF7 Ubiquinone biosynthesis protein COQ4 ho	Q8IIP1	355	0		UniProt keyword:surface P.falciparum
sp|Q8IJD4|RSSA_PLAF7 Small ribosomal subunit protein uS2 OS=	Q8IJD4	263	0		UniProt keyword:surface P.falciparum
sp|Q8IJI1|ZIPCO_PLAF7 Putative metal ion transporter ZIPCO O	Q8IJI1	325	0		UniProt keyword:surface P.falciparum
sp|Q8IK85|COX11_PLAF7 Cytochrome c oxidase assembly protein	Q8IK85	228	0		UniProt keyword:surface P.falciparum
sp|Q8IKN4|NNRE_PLAF7 NAD(P)H-hydrate epimerase OS=Plasmodium	Q8IKN4	287	0		UniProt keyword:surface P.falciparum
sp|Q8IKT4|ISCU_PLAF7 Iron-sulfur cluster assembly protein Is	Q8IKT4	162	0		UniProt keyword:surface P.falciparum
sp|Q8IKW2|SIR2B_PLAF7 NAD-dependent protein deacetylase Sir2	Q8IKW2	1304	0		UniProt keyword:surface P.falciparum
sp|Q8IL48|TRIP_PLAF7 tRNA import protein OS=Plasmodium falci	Q8IL48	402	0		UniProt keyword:surface P.falciparum
sp|Q8ILT5|SEY1_PLAF7 Protein SEY1 homolog OS=Plasmodium falc	Q8ILT5	937	0		UniProt keyword:surface P.falciparum
sp|Q8ILW6|NMT_PLAF7 Glycylpeptide N-tetradecanoyltransferase	Q8ILW6	410	0		UniProt keyword:surface P.falciparum
sp|Q8IM30|PPR1_PLAF7 Pentatricopeptide repeat-containing pro	Q8IM30	608	0		UniProt keyword:surface P.falciparum
sp|C0H559|ATAT_PLAF7 Alpha-tubulin N-acetyltransferase OS=Pl	C0H559	184	0		UniProt keyword:surface P.falciparum
sp|C6KSN4|ARID_PLAF7 AT-rich interactive domain-containing p	C6KSN4	2368	0		UniProt keyword:surface P.falciparum
sp|C6KSX1|PF12P_PLAF7 Surface protein P12p OS=Plasmodium fal	C6KSX1	371	0		UniProt keyword:surface P.falciparum
sp|C6KTD4|SEC14_PLAF7 CRAL/TRIO domain-containing lipid tran	C6KTD4	328	0		UniProt keyword:surface P.falciparum
sp|O00806|RLA2_PLAF7 Large ribosomal subunit protein P2 OS=P	O00806	112	0		UniProt keyword:surface P.falciparum
sp|O77323|TCPH_PLAF7 T-complex protein 1 subunit eta OS=Plas	O77323	539	0		UniProt keyword:surface P.falciparum
sp|O77374|PF07_PLAF7 Uncharacterized protein PFC0810c OS=Pla	O77374	1119	0		UniProt keyword:surface P.falciparum
sp|O77384|LRR4_PLAF7 Protein PFC0760c OS=Plasmodium falcipar	O77384	3394	0		UniProt keyword:surface P.falciparum
sp|O77392|IPYR_PLAF7 Probable inorganic pyrophosphatase OS=P	O77392	380	0		UniProt keyword:surface P.falciparum
sp|O96133|ROPE_PLAF7 Repetitive organellar protein OS=Plasmo	O96133	1979	0		UniProt keyword:surface P.falciparum
sp|O96160|YPF14_PLAF7 Uncharacterized protein PF3D7_0207100	O96160	1745	0		UniProt keyword:surface P.falciparum
sp|O96185|YPF08_PLAF7 Uncharacterized protein PF3D7_0210200	O96185	2588	0		UniProt keyword:surface P.falciparum
sp|O97235|EFTS_PLAF7 Elongation factor Ts, mitochondrial OS=	O97235	390	0		UniProt keyword:surface P.falciparum
sp|O97237|YGCC1_PLAF7 GRIP and coiled-coil domain-containing	O97237	1139	0		UniProt keyword:surface P.falciparum
sp|Q03400|SANT_PLAF7 S-antigen protein OS=Plasmodium falcipa	Q03400	585	0		UniProt keyword:surface P.falciparum
sp|Q25825|YCF93_PLAF7 Apicoplast membrane protein Ycf93 OS=P	Q25825	121	0		UniProt keyword:surface P.falciparum
sp|Q6LFD5|RK18_PLAF7 Large ribosomal subunit protein uL18c O	Q6LFD5	213	0		UniProt keyword:surface P.falciparum
sp|Q8I1N6|AP2A_PLAF7 AP2/ERF domain-containing protein PFD09	Q8I1N6	3473	0		UniProt keyword:surface P.falciparum
sp|Q8I299|E140_PLAF7 Putative iron transporter OS=Plasmodium	Q8I299	791	0		UniProt keyword:surface P.falciparum
sp|Q8I2J4|PROF_PLAF7 Profilin OS=Plasmodium falciparum (isol	Q8I2J4	171	0		UniProt keyword:surface P.falciparum
sp|Q8I3H7|TIP_PLAF7 T-cell immunomodulatory protein homolog	Q8I3H7	719	0		UniProt keyword:surface P.falciparum
sp|Q8I3Z1|MLRR1_PLAF7 MATH and LRR domain-containing protein	Q8I3Z1	10061	0		UniProt keyword:surface P.falciparum
sp|Q8I3Z5|TCTP_PLAF7 Translationally-controlled tumor protei	Q8I3Z5	171	0		UniProt keyword:surface P.falciparum
sp|Q8I4T1|VPS26_PLAF7 Vacuolar protein sorting-associated pr	Q8I4T1	297	0		UniProt keyword:surface P.falciparum
sp|Q8I4V5|UTP11_PLAF7 Probable U3 small nucleolar RNA-associ	Q8I4V5	212	0		UniProt keyword:surface P.falciparum
sp|Q8I589|PPR2_PLAF7 Pentatricopeptide repeat-containing pro	Q8I589	1413	0		UniProt keyword:surface P.falciparum
sp|Q8I5I1|YL135_PLAF7 Uncharacterized protein PF3D7_1223600	Q8I5I1	1560	0		UniProt keyword:surface P.falciparum
sp|Q8I5Z5|YPF09_PLAF7 Uncharacterized protein PF3D7_1205000	Q8I5Z5	781	0		UniProt keyword:surface P.falciparum
sp|Q8I659|ATG11_PLAF7 Putative autophagy-related protein 11	Q8I659	1383	0		UniProt keyword:surface P.falciparum
sp|Q8IBB8|YPF15_PLAF7 Uncharacterized protein MAL8P1.12 OS=P	Q8IBB8	1033	0		UniProt keyword:surface P.falciparum
sp|Q8IBP1|YPF16_PLAF7 Uncharacterized membrane protein OS=Pl	Q8IBP1	3459	0		UniProt keyword:surface P.falciparum
sp|Q8ID92|CADF2_PLAF7 Cofilin/actin-depolymerizing factor ho	Q8ID92	143	0		UniProt keyword:surface P.falciparum
sp|Q8IDG7|YPF01_PLAF7 Uncharacterized protein PF13_0277 OS=P	Q8IDG7	2068	0		UniProt keyword:surface P.falciparum
sp|Q8IER7|RPB11_PLAF7 Probable DNA-directed RNA polymerase I	Q8IER7	126	0		UniProt keyword:surface P.falciparum
sp|Q8IFN0|YD115_PLAF7 Uncharacterized protein PFD1115c OS=Pl	Q8IFN0	1612	0		UniProt keyword:surface P.falciparum
sp|Q8II87|S14L_PLAF7 CRAL/TRIO domain-containing lipid trans	Q8II87	297	0		UniProt keyword:surface P.falciparum
sp|Q8IIG1|YK213_PLAF7 Uncharacterized protein PF3D7_1120600	Q8IIG1	2545	0		UniProt keyword:surface P.falciparum
sp|Q8IIG4|MRS2_PLAF7 Mitochondrial inner membrane magnesium	Q8IIG4	529	0		UniProt keyword:surface P.falciparum
sp|Q8IIG7|YPF05_PLAF7 Uncharacterized protein PF3D7_1120000	Q8IIG7	1070	0		UniProt keyword:surface P.falciparum
sp|Q8IL52|YSNF1_PLAF7 Putative vacuolar protein sorting-asso	Q8IL52	229	0		UniProt keyword:surface P.falciparum
sp|Q8ILI6|AN32_PLAF7 Acidic leucine-rich nuclear phosphoprot	Q8ILI6	281	0		UniProt keyword:surface P.falciparum
sp|Q8ILR9|YPF17_PLAF7 Protein PF3D7_1417600 OS=Plasmodium fa	Q8ILR9	4662	0		UniProt keyword:surface P.falciparum
sp|Q8IM04|YPF04_PLAF7 Uncharacterized protein PF3D7_1409200	Q8IM04	198	0		UniProt keyword:surface P.falciparum
sp|Q8IM46|YPF02_PLAF7 Uncharacterized protein PF3D7_1404800	Q8IM46	954	0		UniProt keyword:surface P.falciparum
sp|Q8IM77|YPFJ1_PLAF7 Uncharacterized J domain-containing pr	Q8IM77	492	0		UniProt keyword:surface P.falciparum
sp|Q9U0M8|YPF06_PLAF7 Uncharacterized protein PFA0635c OS=Pl	Q9U0M8	584	0		UniProt keyword:surface P.falciparum
sp|C0H4K2|PF08_PLAF7 Uncharacterized protein OS=Plasmodium f	C0H4K2	262	0		UniProt keyword:surface P.falciparum
sp|C6KSS5|LRR2_PLAF7 Protein PFF0380w OS=Plasmodium falcipar	C6KSS5	2752	0		UniProt keyword:surface P.falciparum
sp|Q8I5G1|YPF10_PLAF7 Uncharacterized protein PF3D7_1225600	Q8I5G1	781	0		UniProt keyword:surface P.falciparum
sp|Q8IC19|YPF13_PLAF7 Uncharacterized protein PF07_0021 OS=P	Q8IC19	989	0		UniProt keyword:surface P.falciparum
sp|Q8IC32|Y7014_PLAF7 Leucine-rich repeat and coiled-coil do	Q8IC32	1058	0		UniProt keyword:surface P.falciparum
sp|Q8ID39|Y13P2_PLAF7 Uncharacterized protein MAL13P1.336 OS	Q8ID39	685	0		UniProt keyword:surface P.falciparum
sp|Q8ID94|YPF12_PLAF7 Uncharacterized protein MAL13P1.304 OS	Q8ID94	1792	0		UniProt keyword:surface P.falciparum
sp|Q8IE51|Y13P1_PLAF7 Uncharacterized protein MAL13P1.147 OS	Q8IE51	270	0		UniProt keyword:surface P.falciparum
sp|Q8IHS4|CCD1_PLAF7 Coiled-coil domain-containing protein P	Q8IHS4	319	0		UniProt keyword:surface P.falciparum
sp|Q8IL06|YPF07_PLAF7 Uncharacterized protein PF3D7_1446700	Q8IL06	357	0		UniProt keyword:surface P.falciparum
sp|Q8ILC2|TGTL_PLAF7 Queuine tRNA-ribosyltransferase-like pr	Q8ILC2	407	0		UniProt keyword:surface P.falciparum
sp|Q8IM00|YPF03_PLAF7 Uncharacterized protein PF3D7_1409500	Q8IM00	875	0		UniProt keyword:surface P.falciparum

analysis3b_pfalciparum_partial_kmer_overlaps

gene	uniprot_id	kmer_length	position	peptide
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	7	66	RIILDSK
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	7	67	IILDSKA
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	7	68	ILDSKAF
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	7	69	LDSKAFK
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	9	64	KNRIILDSK
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	9	65	NRIILDSKA
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	9	66	RIILDSKAF
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	9	67	IILDSKAFK
sp|A0A5K1K8H0| CDPK5_PLAF7 Calcium-dependent protein kinase 5	A0A5K1K8H0	9	68	ILDSKAFKD

analysis2a_rscu_motif_vs_rest

codon	rscu_NNLDSKV_segment	rscu_rest_of_spike	rscu_full_spike	rscu_ratio_motif_vs_rest
AAA	0.0	1.2667	1.2459	0.0
AAC	1.0	0.7674	0.7727	1.303
AAG	2.0	0.7333	0.7541	2.7273
AAT	1.0	1.2326	1.2273	0.8113
ACA	0.0	1.6495	1.6495	0.0
ACC	0.0	0.4124	0.4124	0.0
ACG	0.0	0.1237	0.1237	0.0
ACT	0.0	1.8144	1.8144	0.0
AGA	0.0	2.8571	2.8571	0.0
AGC	0.0	0.3061	0.303	0.0
AGG	0.0	1.4286	1.4286	0.0
AGT	0.0	1.0408	1.0303	0.0
ATA	0.0	0.7105	0.7105	0.0
ATC	0.0	0.5526	0.5526	0.0
ATG	0.0	1.0	1.0	0.0
ATT	0.0	1.7368	1.7368	0.0
CAA	0.0	1.4839	1.4839	0.0
CAC	0.0	0.4706	0.4706	0.0
CAG	0.0	0.5161	0.5161	0.0
CAT	0.0	1.5294	1.5294	0.0
CCA	0.0	1.7241	1.7241	0.0
CCC	0.0	0.2759	0.2759	0.0
CCG	0.0	0.0	0.0	
CCT	0.0	2.0	2.0	0.0
CGA	0.0	0.0	0.0	
CGC	0.0	0.1429	0.1429	0.0
CGG	0.0	0.2857	0.2857	0.0
CGT	0.0	1.2857	1.2857	0.0
CTA	0.0	0.5047	0.5	0.0
CTC	0.0	0.6729	0.6667	0.0
CTG	0.0	0.1682	0.1667	0.0
CTT	6.0	1.9626	2.0	3.0571
GAA	0.0	1.4167	1.4167	0.0
GAC	0.0	0.623	0.6129	0.0
GAG	0.0	0.5833	0.5833	0.0
GAT	2.0	1.377	1.3871	1.4524
GCA	0.0	1.3671	1.3671	0.0
GCC	0.0	0.4051	0.4051	0.0
GCG	0.0	0.1013	0.1013	0.0
GCT	0.0	2.1266	2.1266	0.0
GGA	0.0	0.8293	0.8293	0.0
GGC	0.0	0.7317	0.7317	0.0
GGG	0.0	0.1463	0.1463	0.0
GGT	0.0	2.2927	2.2927	0.0
GTA	0.0	0.625	0.6186	0.0
GTC	0.0	0.875	0.866	0.0
GTG	0.0	0.5417	0.5361	0.0
GTT	4.0	1.9583	1.9794	2.0426
TAA	0.0	3.0	3.0	0.0
TAC	0.0	0.5185	0.5185	0.0
TAG	0.0	0.0	0.0	
TAT	0.0	1.4815	1.4815	0.0
TCA	0.0	1.5918	1.5758	0.0
TCC	0.0	0.7347	0.7273	0.0
TCG	0.0	0.1224	0.1212	0.0
TCT	6.0	2.2041	2.2424	2.7222
TGA	0.0	0.0	0.0	
TGC	0.0	0.6	0.6	0.0
TGG	0.0	1.0	1.0	0.0
TGT	0.0	1.4	1.4	0.0
TTA	0.0	1.5701	1.5556	0.0
TTC	0.0	0.4675	0.4675	0.0
TTG	0.0	1.1215	1.1111	0.0
TTT	0.0	1.5325	1.5325	0.0

analysis2c_ks_and_rscu_per_sarbecovirus

accession	description	ks_proxy_NNLDSKV_segment	ks_proxy_full_spike	rscu_euclidean_dist_vs_cov2
AY274119	SARS coronavirus Tor2, complete genome	0.0		2.2771
AY508724	SARS coronavirus NS-1, complete genome	0.0		2.2541
DQ022305	Bat SARS coronavirus HKU3-1, complete genome	0.0		2.299
KY417146	Bat SARS-like coronavirus isolate Rs4231, complete genome	0.0		2.362
KY417147	Bat SARS-like coronavirus isolate Rs4237, complete genome	1.0		2.1059
KY417148	Bat SARS-like coronavirus isolate Rs4247, complete genome	0.0		2.1918
KY417149	Bat SARS-like coronavirus isolate Rs4255, complete genome	1.0		1.9904
KY417150	Bat SARS-like coronavirus isolate Rs4874, complete genome	0.0		2.4157
KF569996	Rhinolophus affinis coronavirus isolate LYRa11, complete genome	1.0		1.8448
DQ084200	bat SARS coronavirus HKU3-3, complete genome	0.0		2.299
GQ153548	Bat SARS coronavirus HKU3-13, complete genome	0.0		2.3129

analysis1_recombination_430_460

accession	description	spike_length_aa	region_430_460_aa	NNLDSKV_in_region	aa_identity_vs_cov2_430_460	nt_synonymous_diff_vs_cov2_430_460	note
AY278741		0		FALSE			spike too short or not found
AY274119	SARS coronavirus Tor2, complete genome	1255	ATSTGNYNYKYRYLRHGKLRPFERDISNVPF	FALSE	0.0645	0.5	
AY508724	SARS coronavirus NS-1, complete genome	1255	ATSTGNYNYKYRYLRHGKLRPFERDISNVPF	FALSE	0.0645	0.5	
DQ022305	Bat SARS coronavirus HKU3-1, complete genome	1242	AKHDTGNYYYRSHRKTKLKPFERDLSSDDGN	FALSE	0.0645	0.0	
KY417146	Bat SARS-like coronavirus isolate Rs4231, complete genome	1255	SSTSGNYNYLYRWVRRSKLNPYERDLSNDIY	FALSE	0.0968	0.6667	
KY417147	Bat SARS-like coronavirus isolate Rs4237, complete genome	1241	AKQDQGQYYYRSSRKTKLKPFERDLSSDENG	FALSE	0.0323	1.0	
KY417148	Bat SARS-like coronavirus isolate Rs4247, complete genome	1242	AKQDTGHYYYRSHRKTKLKPFERDLSSDDGN	FALSE	0.0645	0.0	
KY417149	Bat SARS-like coronavirus isolate Rs4255, complete genome	1241	AKQDQGQYYYRSSRKTKLKPFERDLSSDENG	FALSE	0.0323	1.0	
KY417150	Bat SARS-like coronavirus isolate Rs4874, complete genome	1255	ATQTGNYNYKYRSLRHGKLRPFERDISNVPF	FALSE	0.0645	0.5	
KF569996	Rhinolophus affinis coronavirus isolate LYRa11, complete genome	1259	RNIDATSSGNFNYKYRSLRHGKLRPFERDIS	FALSE	0.0968	1.0	
DQ084200	bat SARS coronavirus HKU3-3, complete genome	1242	AKHDTGNYYYRSHRKTKLKPFERDLSSDDGN	FALSE	0.0645	0.0	
GQ153548	Bat SARS coronavirus HKU3-13, complete genome	1242	AKHDTGNYYYRSHRKTKLKPFERDLSSDDGN	FALSE	0.0645	0.0	
GQ153549		0		FALSE			spike too short or not found
GQ153550		0		FALSE			spike too short or not found
KU182965	Bat coronavirus isolate JPDB144, complete genome	1352	CNGISPDAIARGCYSTLTVDYFAYPLSMKSY	FALSE	0.129	0.75	
KU182966	Bat coronavirus P1ab (ORF1ab) gene, partial cds; spike protein (S), 3a protein (ORF3a), envelope protein (E), and membrane protein (M) genes, complete cds; and nucleocapsid protein (N) gene, partial cds	1365	IASTKLVEVMTQVNGTNIVKMLYCDNPVRSL	FALSE	0.0323	0.0	
MG772933	Bat SARS-like coronavirus isolate bat-SL-CoVZC45, complete genome	1246	IAWNTAKQDVGNYFYRSHRSTKLKPFERDLS	FALSE	0.0968	1.0	
MG772934	Bat SARS-like coronavirus isolate bat-SL-CoVZXC21, complete genome	1245	AWNTAKQDTGHYFYRSHRSTKLKPFERDLSS	FALSE	0.0323	0.0	
KP886808	Bat SARS-like coronavirus YNLF_31C, complete genome	1241	AKYDVGSYFYRSHRSSKLKPFERDLSSEENG	FALSE	0.0	0.0	
KY352407		0		FALSE			spike too short or not found
KF294457	Bat SARS-like coronavirus isolate Longquan-140 orf1ab polyprotein, spike glycoprotein, envelope protein, membrane protein, and nucleocapsid protein genes, complete cds	1242	AKQDIGNYYYRSHRKTKLKPFERDLSSDDGN	FALSE	0.0968	0.3333	
DQ412043	Bat SARS coronavirus Rm1, complete genome	1241	AQQDQGQYYYRSYRKEKLKPFERDLSSDENG	FALSE	0.0323	0.0	
DQ648857	Bat coronavirus (BtCoV/279/2005), complete genome	1241	AQQDQGQYYYRSYRKEKLKPFERDLSSDENG	FALSE	0.0323	0.0	
EU371559	SARS coronavirus ZJ02, complete genome	1255	ATSTGNYNYKYRYLRHGKLRPFERDISNVPF	FALSE	0.0645	0.5	
KJ473798	BtMf-AlphaCoV/HuB2013, complete genome	1374	RGATDLWTVAFSNFTEVLAEVENTAIKALLY	FALSE	0.0645	0.5	
KJ473816	BtRs-BetaCoV/YN2013, complete genome	1233	FYRSHRSTKLKPFERDLSSDENGVRTLSTYD	FALSE	0.0323	1.0	